System Configuration Team Meeting

January 26, 2006

1. Greetings and Introductions.

SCT chair Bill Hevlin welcomed everyone to today's SCT meeting, held at the NOAA Fisheries meeting in Portland, Oregon. The following is a summary (not a verbatim transcript) of the topics discussed and decisions made at this meeting. Anyone with questions or comments about these notes should contact Kathy Ceballos at 503-230-5420.

2.FFDRWG and SRWG Updates.

Marvin Shutters said there were several issues raised at the most recent SRWG meeting, including the Lower Monumental study and the proposed delayed mortality study. There were also some comments on the hydroacoustic studies, including the suggestion that Ice Harbor should be a lower priority than Lower Granite or Little Goose. We are also discussing the alternate barge release concept with Idaho, and will be providing a written response to their comments, Shutters said; we can provide that response to SCT if that would be helpful. We will also distribute final proposals once they are received, he added.

Langeslay noted that the Portland District plans to fund the chum study and decided to monitor ambient TDG around the redds in 2006. NMFS was the only entity to submit comments on the Portland District proposals. Also, he said, it's getting to the time of year in which we need to begin scheduling subgroup meetings to discuss the one-pagers for next year.

The next Walla Walla District FFDRWG meeting was set for next Thursday. Shutters noted that, in the future, Mark Smith will be coordinating the FFDRWG meetings.

3. System Flood Control Study.

Kranda said the study will be out soon, and will be distributed via the www.salmonrecovery.gov website; there will be a 45-day review. It was agreed that the SCT will revisit this topic at its February meeting.

4. FY'06 CRFM Budget.

There are no major changes to report since the last time we discussed this, said Kranda. Corps policy folks are pretty firm that fully-funded projects will be the norm for future budgets; while the door isn't completely closed on continuing projects, the default is going to be to fully fund even large contracts, such as The Dalles JBS or the Lower Monumental RSW, within a given fiscal year.

Kranda cited The Dalles JBS as the type of project for which the region could argue that other projects are needed to meet the action agencies' ESA responsibilities, so a continuing contract would be appropriate. It will be up to the Congress to decide whether they'll give us, say, $140 million in that year, Kranda said. Again, however, the status quo for the foreseeable future is going to be fully-funded projects. Kranda reiterated that no savings and slippage will be deducted from the FY'06 CRFM appropriation. He noted that he has been receiving some refined cost estimates on many of the FY'06 CRFM projects, some on the plus side, some on the minus side. The cost of The Dalles J-block removal line-tem has gone down significantly, he added; those revised numbers are not reflected in this edition of the spreadsheet.

In response to a question, Kranda said the reason for Congress' insistence on fully-funded contracts is to avoid multi-year obligations, and the potential for abuse or misuse of funds. And does the fully-funded mandate include the subsequent RM&E for a given project? David Wills asked. No, Kranda replied – it only applies to the capital cost of construction.

We're going to work through the numbers next month once we receive final proposals, and see where we stand, said Kranda. We'll have a better idea where we are at the February SCT meeting. Once we get through the first year of this new approach, and are able to fully fund the first year's projects, each year thereafter should be a wash – the new work and the old work should balance each other out. My main concern is very large projects like The Dalles BGS, said Gary Fredricks – unless Congress bumps up our budget in the years in which those projects are proposed, we may not be able to meet all of our obligations.

It sounds, then, as though we should be able to get through about line-item 53 in FY'06, said Hevlin. It looks that way, Kranda replied. In response to another question, Hevlin said the best way for SCT participants to obtain additional information about a given line-item is to talk to him, Kranda or Chong directly, otherwise consult the latest work plans. So the budget has been passed by Congress, said Wills – what's the procedure now for actually funding projects? Another thing that changed this year is that, instead of receiving the full amount, Congress held back a 1% recission, Kranda replied – we got $84,150,000 rather than $85 million. To answer your question, this year we're being funded quarterly, based on what we as managers see as our expected obligations through the end of that quarter. In previous years, once the appropriations process concluded, we received the entire CRFM budget in a lump sum, Kranda

explained.

5. Review and Discussion of the Corps' Three New Technical Memos.

Chong said the Corps sent out three memos in November in response to comments received on the draft surface passage strategy. The first one covered the feasibility of the design of an adjustable spillway weir; we feel this technology has the potential to optimize fish passage, minimize injury and give us additional operational flexibility at each project, Chong said. Based on our analysis, we feel that this is viable and warrants a more detailed look.

Within the upper management at Walla Walla District, there was some question about whether we should be pursuing an adjustable spillway weir design for Lower Monumental, Chong said – the consensus seemed to be that, at this point in time, it probably wasn't a good idea to try this at Lower Monumental. The decision was therefore made to proceed with contract advertisement for a conventional RSW at Lower Monumental. We are planning to investigate the adjustable spillway weir concept further, he said; we will involve the SCT in the deliberations about whether this is a technology we should pursue, or whether we should put it to bed. That evaluation will include a head-to-head modeling comparison of the characteristics of RSWs vs. ASWs, using sectional and computer models and engineering work, Lynn Reece added.

Hevlin observed that he has concern with whether sufficient need has been identified by the region for the adjustability function of the ASW. Presently there are two RSWs operating in the river, and to my knowledge their lack of adjustability has not been raised as a critical flaw in the RSW design. One of the big challenges is nailing down our goals, in terms of what percentage of the fish we want to pass via spill, Reece replied. In a low-flow year, during the summer, it may be advantageous to have a design that will allow us to spill less; in a high-flow year, we might want the ability to spill more through one of these weirs.

Another caution, for me anyway, is that from what we know in terms of putting different flows through a spill bay, you find different survivals, said Hevlin. When we do a biological evaluation of the proposed ASW, we'll have to evaluate survival through a wide range of flows – 3 Kcfs, 5 Kcfs, 7 Kcfs etc. That is a legitimate question, said Reece – will survival be different at the highest spill level than it is at the lowest setting? You'll basically have to develop a spill efficiency and survival chart over the full range of conditions, said Hevlin. You also have the complexity of a varying spill pattern over a range of flows, Tom Lorz observed – it would necessarily be a very complex evaluation.

And one other point, said Hevlin, it makes sense to me that to really determine whether an ASW prototype performs as well as an RSW, you will want to place and evaluate the ASW near an existing RSW, basically a weir to weir comparison. Perhaps, but we've already placed the RSWs in their optimum bay, said Wills – I'm not sure putting an ASW into a bay that won't perform as well will yield valid test results. Various

SCT participants weighed in on Hevlin's observation, some agreeing, others disagreeing. Again, said Reece, we will be doing further engineering work to look more closely at these questions and others.

Russ Kiefer said that, once again, we're moving forward with RSW installation at the Columbia River projects, which are located in a very different environment than the Lower Snake. There will be a lot of engineering work before that can happen, he said. The State of Idaho's position is that we already have a design that works well at the Snake River projects, and we want it implemented. We want you to finish installing RSWs at the Snake River projects – if it ain't broke, don't fix it. Once we have RSWs at all of the Lower Snake projects, he said, then you can move on to the Lower Columbia projects, and investigate the ASW concept in more detail. We want to see Little Goose with a working RSW by the spring of 2008, Kiefer said. We do see an advantage to investigating the ASW concept for McNary and John Day; however, we don't see an advantage to putting RSW implementation at the Lower Snake projects on hold while you investigate the ASW concept. Wills said the Fish and Wildlife Service agrees with Idaho's position; Oregon and CRITFC did as well.

Moving on, Chong said the second Corps memo covered the utilization of temporary spillway weirs. Our feeling is that this might be an economical way to test potential RSW locations at McNary and John Day, said Chong; we have already done some sectional modeling of this concept. It does appear that the concept is viable and could work, despite concerns about the transition area. Our plan is that we will continue the modeling work to fine-tune the concept, construct a prototype this summer and conduct some injury testing in the fall of 2006 at McNary, Chong said.

What I've heard about the modeling observations concern me, said Hevlin – free flow, or an unsupported water column, over a spillbay weir and landing on the apron just above the deflector isn't something we have previously supported, due to the likelihood of fish injuries and mortalities. Just recently I reviewed the 2005 Ice Harbor balloon-tag study draft, and was again surprised at the significant injury rate for fish released just above the RSW crest, and these fish are in a water column supported by an ogee. Why, given those results, wouldn't you suspect that there would likely be a higher injury rate for fish in a free-falling water column which impacts near the deflector? Hevlin asked.

Marvin Shutters replied that the fish at Ice Harbor were impacting a flow deflector positioned perpendicular to the water column; the fish passing via the temporary spillway weir would be striking at a much shallower angle. Still, we're going to have to evaluate this very carefully, said Fredricks – I don't necessarily agree with that assessment. I don't think there's any question that the TSW would produce worse condition than the current spillbay configuration at McNary, said another participant – the question is whether we can tolerate that lesser performance for a limited period of time in order to test the best location for a more permanent structure. The key will be how to evaluate this concept effectively, especially in the fall, when the fish are not going to be representative of the fish that would be passing during the spring, Fredricks

said.

In response to a question, the Corps said the cost of the temporary spillway weir will likely be less than $1.5 million. That isn't a hugely significant amount, said Hevlin, but anything we build has to pass the common-sense test. In my opinion, this concept doesn't pass the common-sense test. Based on all of the experience we have, I don't think the temporary spillway weir concept is safe for fish. I think it could be successful in passing fish, added Fredricks, but I think it also has the potential to kill a lot of listed fish very quickly. I think we need to be very cautious in going forward. Swenson added, I think the kernel concept is - are we willing to take some risk in exchange for finding out a lot about where the best place is to locate the McNary RSW?

A lengthy discussion ensued, touching on the pros, cons, potential advantages and potential dangers associated with the TSW concept, as well as Grant County PUD's interest in the concept at their projects. Ultimately, it was agreed to revisit the TSW concept at next week's Walla Walla District FFDRWG meeting; it was further agreed that the TSW concept may warrant a special meeting to allow for a full and detailed discussion.

Moving on to the third memo, Chong said its subject was Little Goose surface passage implementation. I put this out to share our thoughts as to why we feel that it will not be possible to meet a spring 2008 implementation deadline at Little Goose, and why the spring of 2009 is more feasible, he said. The primary reason is the lack of biological data; we have far less biological data at that project than we did at Lower Monumental, said Chong.

What biological data is going to drive the placement of the Little Goose RSW? Hevlin asked. Tailrace egress, survival through specific spillways, deflector height, and forebay guidance were all cited as areas where more information is needed. Hevlin noted that tailrace egress conditions have recently been evaluated using the Little Goose general model at WES; and based on that evaluation, he said, it's pretty obvious that the best location for the RSW would be bays 1 or 2. Hevlin noted that Bay 1 currently lacks a deflector; and until that deflector is installed, it won't be possible to run an effective test there. Others disagreed, noting that, at 30% spill, TDG should not be a problem. Hevlin suggested that it would be possible to get bay-specific survival information through Bay 2 in 2006.

With respect to the forebay guidance issue at 30% spill, Hevlin said that, in his opinion, if there is bulk spill through either bay 1 or 2, the fish will follow that. I know that others are not convinced, however, Hevlin said. It was noted that the thalweg approaches the spillway at bays 6 and 7 at Little Goose.

In general, said Hevlin, I'm not sure I agree that we lack the biological information necessary to proceed with a program targeting RSW installation at Little Goose by the spring of 2008 – I think it's going to come down to a choice between bays 1 and 2.

Kiefer agreed, noting that, with 70% of the river flow going through the powerhouse, if you're spilling another 8 Kcfs right next to the powerhouse that creates one big thalweg. I would be willing to bet that we'll want to install the RSW in either bay 1 or bay 2, he said; the only question is whether we want to put it in bay 2, or build the deflector in conjunction with the RSW in bay 1.

After a few minutes of additional discussion, it was agreed to revisit this issue at next week's FFDRWG meeting. It was agreed that, at least for now, this issue will not be elevated to the IT, although it may be introduced as an information item at next week's IT meeting. In response to a question, NOAA Fisheries, Oregon and Idaho strongly urged that the Corps adhere to its spring 2008 installation schedule at Little Goose, even if there is some risk involved. Does that mean 2008 at all costs, even if it causes the schedule for McNary RSW to slip somewhat? Chong asked. What we're saying is that we proceed with testing at Little Goose in 2006, and if we see red flags in what that research tells us, then we'll slow down, said Hevlin. I'm not just talking about financial resources – I'm talking about human resources and expertise as well, Kranda replied. Are you saying you want to switch horses now? he asked. That's a frustration, said Kiefer – we're not talking about switching horses. In the summer of 2004, we agreed that we would finish installing RSWs at the Lower Snake projects as soon as possible, by 2007, ideally, and by 2008 at the latest, Kiefer said. We have heard your comments and concerns, and we'll discuss them with our managers, Chong said. Hevlin said that, if necessary due to schedule or time constraints, he would convene an SCT conference call prior to the Feb. 16 meeting date to revisit this issue.

7. Next SCT Meeting Date.

The next System Configuration Team meeting was set for Thursday, February 16. Meeting summary prepared by Jeff Kuechle.